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ASSIGNMENT BOOKLET

2225 MATHEMATICS 24 UNIT 8

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1. BEFORE MAILING YOUR ASSIGNMENT BOOKLET PLEASE SEE THAT:

(1) All assignments are completed. If not, explain why.
(2) Your work has been re-read to ensure accuracy in spelling and details.
(3) The booklet cover is filled out and the correct module label is attached.

2. POSTAGE REGULATIONS

Do **not** enclose letters with Assignments Booklets.

Send all letters in a separate envelope.

3. POSTAGE RATES

First Class

Take your Assignment Booklet to the Post Office and have it weighed. Attach sufficient postage and a green first-class sticker to the front of the envelope, and seal the envelope. Correspondence Assignment Booklets will travel faster if first-class postage is used.

Try to mail each Assignment Booklet as soon as it has been completed.

When you register for correspondence courses, you are expected to send Assignment Booklets for correction regularly. Do not send more than one Assignment Booklet in one subject at the same time.

Unit 8

Mathematics 24

Cost of Independence

Assignment Booklet

Distance Learning

Alberta EDUCATION

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Your mark on this unit will be determined by how well you answer the questions in this booklet.

Work slowly and carefully. If you are having difficulties, go back and review the appropriate topic.

The four topics that you studied in your unit are covered in this assignment booklet. The total value of these topics is 100 marks. Each topic is divided into several questions. The value of each question is stated in the left margin.

Be sure to proofread each answer carefully.

Do not hand in this booklet until all questions are completed.

Faxing ?

If you are using a facsimile machine to submit your work, be sure to fill in the information at the bottom of every response page.

FOR TEACHER'S USE ONLY

Summary

	Total Possible Marks	Your Mark
Topic 1	32	
Topic 2	24	
Topic 3	11	
Topic 4	33	
	100	

Teacher's Comments

Topic 1: Making a Budget

(2)

1. Below is a chart showing records of monthly expenses. Determine the total monthly expense.

Monthly Fixed Expenses

Rent	$750
Truck payment	$130
Savings	$125
Furniture	$ 55
Insurance	$ 80
Total	

(4)

2. Sue Grant is keeping records of her income for 4 months. Determine her average monthly income.

January	February	March	April
Salary $1650	Salary $1800	Salary $1200	Salary $1450
Pop Bottles $ 46	Lottery $ 660	Dividend $1075	
$1696	$2460	$2275	$1450

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(4)

3. Kyla Quartermaine is keeping records of her income for 4 months. Determine her average monthly income.

January	February	March	April
Salary $1650 Pop Bottles $ 65	Salary $1750 Lottery $ 850	Salary $1225 Dividend $1000	Salary $1500
$1715	$2600	$2225	$1500

(2)

4. Dr. Holiday has the following fixed annual expenses. Determine his total annual fixed expenses.

- horse insurance = $ 750
- ranch insurance = $2450
- life insurance = $ 470
- property taxes = $ 800

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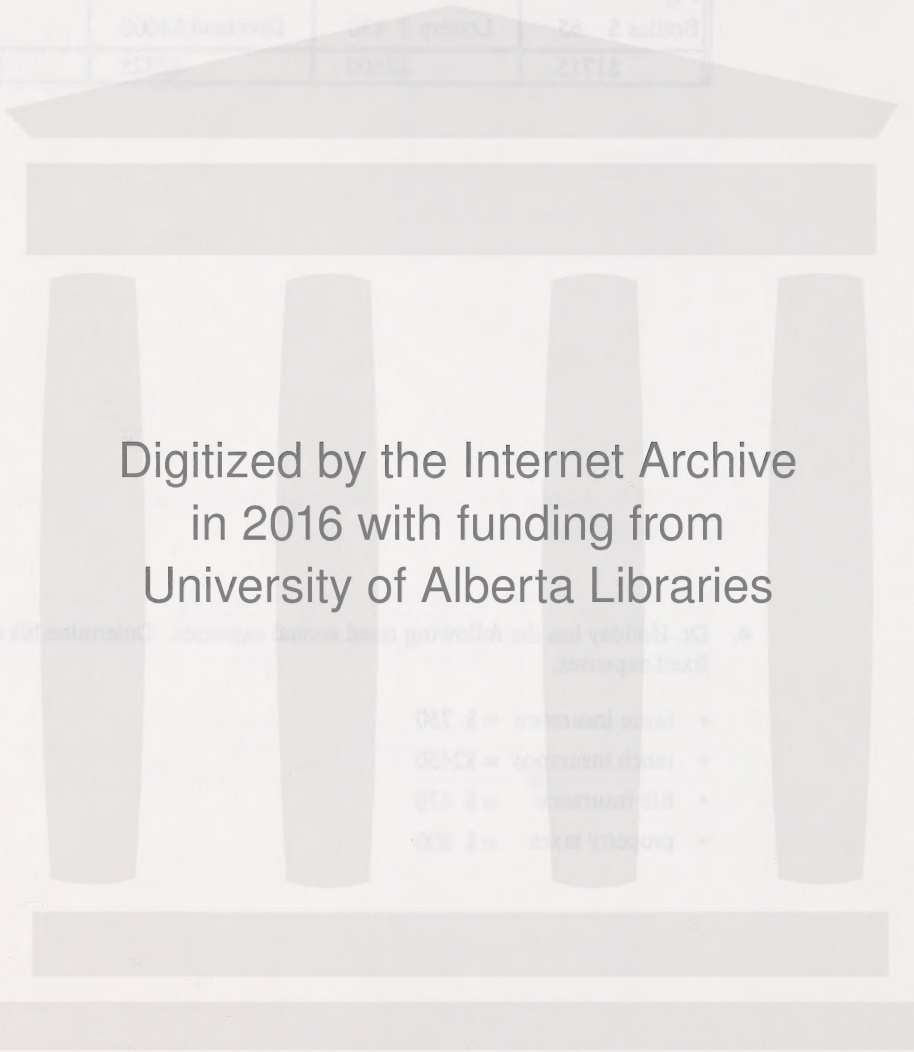

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(4)

5. Dr. Langely has the following monthly expenses:

- office insurance = $ 550
- car insurance = $ 300
- life insurance = $1790
- building taxes = $3020
- clothing = $ 720
- employees = $ 250
- food = $ 440

Determine what percent her food expense is of her total expenses. Express your answer to two decimal places.

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(4)

6. Mr. Sunny has the following annual expenses in his part-time tour bus business.

- office insurance = $ 580
- bus insurance = $ 400
- liability insurance = $1620
- garage fees = $2240
- clothing = $ 780
- equipment = $3450
- fuel = $3460

Determine what percent his liability insurance expense is of his total expenses. Express your answer to two decimal places.

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(4)

7. Mr. and Mrs. Brimbley have a net annual income of $32 373.50. Determine the amount allocated to the rent budget for one month as indicated in the table below. (Use 1 year = 12 months.)

Item	Percent of Budget	Monthly Budget
Rent	23.2%	
Food	20.5%	
Bus	9.0%	
Savings	4.0%	
Recreation	9.4%	
Insurance	9.1%	
Sailboat	9.0%	
Investment	15.8%	

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(4)

8. Doug and Cathy Hetherington have a net annual income of $47 245.75. Determine the amount allocated to the rent for one month as indicated in the table below. (Use 1 year = 12 months.)

Item	Percent of Budget	Monthly Budget
Rent	26.0%	
Food	20.9%	
Bus	6.0%	
Savings	4.5%	
Recreation	7.8%	
Insurance	9.1%	
Sailboat	7.8%	
Investment	17.9%	

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(4)

9. Zak and Heidi Kriket have a net income of $46 210.50. Determine the amount allocated to the vacation budget for one month as indicated in the table below. (Use 1 year = 12 months.)

Item	Percent of Budget	Monthly Budget
Rent	20.3%	
Food	20.3%	
Bus	9.3%	
Savings	6.0%	
Vacation	7.7%	
Insurance	8.1%	
Sailboat	6.9%	
Investment	21.4%	

Topic 1

_____ marks

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Topic 2: Purchases

(2) 1. Sheila Marie pays $9.00 for 1.4 mL of perfume. Calculate the unit price for the perfume to the nearest cent.

(2) 2. Yvette Bonafette pays $7.90 for 5.4 mL of perfume. Calculate the unit price for the perfume to the nearest cent.

(2) 3. The regular price of one litre of oil at a local auto supply store is $2.59. This weekend they are having a sale, and the oil is discounted 36%. Determine the sale price of the oil.

(2) 4. The regular price of a new suit at a local men's store is $470.00. They are having a sale, and all clothing in the store is discounted 21%. Determine the sale price of the suit.

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(2)

5. The regular price of one litre of liquid soap at a local hardware store is $3.49. This weekend they are having a sale, and the soap is discounted 33%. Determine the sale price of the soap.

(3)

6. Vernon wants a new radio-controlled toy car. He cannot afford the regular price of $91.19. When they go on sale for $65.66, he will be able to buy one. What will the rate of discount have to be in order for Vernon to acquire the car? (Answer to the nearest whole number.)

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(3)

7. Lisa wants a new cassette player. She cannot afford the regular price of $81.99. When they go on sale for $55.75, she will be able to buy one. What will the rate of discount have to be in order for Lisa to acquire a cassette player? (Answer to the nearest whole number.)

(4)

8. Bonnie Bracket bought herself a new wardrobe for $1600 which represents a huge 40% discount off the regular price. Calculate the regular price of the clothing.

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(4)

9. Derek just bought a new truck for $14 100 which represented a huge 26% discount off the regular price. Calculate the regular price of the truck.

Topic 2

_____ marks

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Topic 3: Provincial Sales Tax

(3) 1. While in New Brunswick, Mark bought an AM/FM radio priced at $330.00 before sales tax. The provincial sales tax in New Brunswick is 11%. Determine how much tax Mark would have to pay to purchase the radio.

(3) 2. Kari bought a new truck and paid a total of $13 359.60 including sales tax. If the sales tax was 8.0%, how much did he pay in sales tax?

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(3)

3. While in Winnipeg on business, Susan bought a new dress with a retail price of $155.00. The provincial sales tax in Manitoba is 8%. Determine the total cost of the dress.

(2)

4. The retail price of an electric can opener is $34.00. The sales tax is 11%. What is the total price you would pay?

Topic 3

_____ marks

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Topic 4: Buying Life Insurance

④

1. Phil Brunoski is 23 years old and wants to purchase a $70 000.00 term life insurance policy. Use the table below to determine the annual premium. What is the total amount he will pay if he pays for 13 years in advance?

Annual Premium Rates per $10 000 Unit

Age Female	Age Male	Term Life	Straight Life	20-payment Life	Endowment 20 Years
18	15	$ 8.70	$10.80	$15.15	$19.65
19	16	9.28	11.52	16.16	20.96
20	17	9.86	12.24	17.17	22.27
21	18	10.44	12.96	18.18	23.58
22	19	11.02	13.68	19.19	24.89
23	20	11.60	14.40	20.20	26.20
24	21	12.18	15.12	21.21	27.51
25	22	12.76	15.84	22.22	28.82
26	23	13.34	16.56	23.23	30.13
27	24	13.92	17.28	24.24	31.44
28	25	14.50	18.00	25.25	32.75
29	26	15.08	18.72	26.26	34.06
30	27	15.66	19.44	27.27	35.37
31	28	16.24	20.16	28.28	36.68
32	29	16.82	20.88	29.29	37.99
33	30	17.40	21.60	30.30	39.30

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④

2. Both Mr. and Mrs. Littlechild want to take out life insurance. Mr. Littlechild is 27 years old, and Mrs. Littlechild is 25 years old. They each want to purchase $5000.00 of endowment life insurance. Use the table below to determine what each person would pay as an annual premium.

Annual Premium Rates per $1000 Unit

Age Female	Age Male	Term Life	Straight Life	20-payment Life	Endowment 20 Years
18	15	$ 8.25	$10.65	$16.05	$21.15
19	16	8.80	11.36	17.12	22.56
20	17	9.35	12.07	18.19	23.97
21	18	9.90	12.78	19.26	25.38
22	19	10.45	13.49	20.33	26.79
23	20	11.00	14.20	21.40	28.20
24	21	11.55	14.91	22.47	29.61
25	22	12.10	15.62	23.54	31.02
26	23	12.65	16.33	24.61	32.43
27	24	13.20	17.04	25.68	33.84
28	25	13.75	17.75	26.75	35.25
29	26	14.30	18.46	27.82	36.66
30	27	14.85	19.17	28.89	38.07
31	28	15.40	19.88	29.96	39.48
32	29	15.95	20.59	31.03	40.89
33	30	16.50	21.30	32.10	42.30

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④

3. Bill Longfellow is 20 years old. He has purchased a $15 000.00 straight life insurance policy. Use the table below to determine the cash-surrender value of the policy when he is 35 years old.

Cash-surrender Value and Loan Value for $1000 Life Insurance

Number of years premium paid on straight life

Age Male	Age Female	5 years	10 years	15 years	20 years	65 years
20	25	$34.00	$ 77.25	$148.75	$224.50	$620.50
25	30	40.80	92.70	178.50	269.40	574.60
30	35	47.60	108.15	208.25	314.30	528.70
35	40	54.40	123.60	238.00	359.20	482.80
40	45	61.20	139.05	267.75	404.10	436.90
45	50	68.00	154.50	297.50	449.00	391.00
50	55	74.80	169.95	327.25	493.90	345.10
55	60	81.60	185.40	357.00	538.80	299.20

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④

4. Mary Lou Badracov is 25 years old. She has purchased a $69 000.00 straight life insurance policy. Use the table below to determine the cash-surrender value of the policy when she is 45 years old.

Cash-surrender Value and Loan Value for $1000 Life Insurance

Number of years premium paid on straight life

Age Male	Age Female	5 years	10 years	15 years	20 years	65 years
20	25	$35.25	$ 75.25	$146.50	$222.75	$614.75
25	30	42.60	90.30	175.80	267.30	567.70
30	35	49.35	105.35	205.10	311.85	520.65
35	40	56.40	120.40	234.40	356.40	473.60
40	45	63.45	135.45	263.70	400.95	426.55
45	50	70.50	150.50	293.00	445.50	379.50
50	55	77.55	165.55	322.30	490.05	332.45
55	60	84.60	180.60	351.60	534.60	285.40

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(5)

5. Ms. Sharon Sledz wants to purchase a $60 000.00 life insurance policy. She is 35 years of age and wants to select the plan that will give her the largest cash-surrender value when she is 50 years old. Use the tables below to determine the cash-surrender value of each type of policy.

Cash-surrender Value and Loan Value for $1000 Life Insurance

Number of years premium paid on straight life

Age Male	Age Female	5 years	10 years	15 years	20 years	65 years
20	25	$37.25	$ 76.25	$149.50	$221.50	$615.25
25	30	44.70	91.50	179.40	265.80	568.30
30	35	52.15	106.75	209.30	310.10	521.35
35	40	59.60	122.00	239.20	354.40	474.40
40	45	67.05	137.25	269.10	398.70	427.45
45	50	74.50	152.50	299.00	443.00	380.50
50	55	81.95	167.75	328.90	487.30	333.55
55	60	89.40	183.00	358.80	531.60	286.60

Number of years premium paid on 20-year insurance policy

Age Male	Age Female	5 years	10 years	15 years	20 years	65 years
20	25	$ 50.00	$135.00	$223.00	$335.75	$850.45
25	30	60.00	162.00	267.60	402.90	850.45
30	35	70.00	189.00	312.20	470.05	850.45
35	40	80.00	216.00	356.80	537.20	849.33
40	45	90.00	243.00	401.40	604.35	844.33
45	50	100.00	270.00	446.00	671.50	813.12
50	55	110.00	297.00	490.60	738.65	771.21
55	60	120.00	324.00	535.20	805.80	666.33

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(4)

6. A young couple owns a farm northeast of Edmonton. Their two children do not go to school yet. All their debts, including the mortgage on the farm and the money owed on the new equipment, come to $84 000.00. The life insurance salesperson recently talked to them and suggested they should have some life insurance. The salesperson recommended $320 000.00 of term life insurance. The yearly premium would be $1984.00. Do you think this is a good idea? Why or why not?

(4)

7. Butch Munro is a rig worker, single, with no plans to marry. He works on a cycle where he works on a rig for 6 weeks, and then comes home for 3 weeks. Butch has just purchased an expensive car and still owes $24 000.00 on it. He lives with his mom and dad when he is home from work. Do you think life insurance would be a good idea for Butch? Why or why not?

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(4)

8. Marie is a young executive working in a bank. She is single and not planning to marry for at least 4 years as she wants to concentrate on her career. She has just purchased a house and has a mortgage of $17 000.00, but Marie plans to rent the house and continue to live with her parents. Do you think life insurance would be a good idea for Marie? Why or why not?

Topic 4

_____ marks

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